

Let's Save Energy



School Energy Managers Project



Silver Grove Independent Schools . . . making every penny count

No matter how large or how small, every savings opportunity counts. While one of the smallest school districts in Kentucky, Silver Grove Independent Schools must still meet all of the same requirements as any other district and ensure careful consideration of any project or activity.

When the district first became part of the School Energy Managers Project in July 2010, their leaders wanted to do the best they could for their community and the environment.

"Our goal in participating in SEMP was to get as close to being a 'green school' as we could," Superintendent Ken Ellis said. The Energy Utilization Index - "EUI" (energy used per square foot of occupied space) at that time was 69.2, compared with the state average of 64. Since a lower EUI is better, Ellis, along with the Silver Grove Board of Education, took this into consideration when determining facility priorities.

Over the past few years, the envelope of the district's single school building was improved with new, air-tight windows and a new roof. Significant changes were made to the sys-

tem, replacing an older, inefficient fuel-oil boiler with a new high-efficiency gas boiler. Because of the cost of automated boiler controls, the superintendent or principal will turn on the boiler in the morning and the custodian will setback the system when school is dismissed. Individual middle and high school classrooms also have been updated with high efficiency heating/ventilation units that limit the temperature and allow for setting back the temperature during unoccupied times.

The hallways in the school are now lit with T8 fluorescent lighting. To take full advantage of potential savings, motion sensors were also installed. Power strips were purchased for each classroom, generating further savings when teachers simply turn off the power strips at night to eliminate phantom loads.

This work was completed in fall 2013, just before the harsh winter of 2014, so the reduction in the district's EUI was especially noticeable. Since FY 2010, the EUI for Silver Grove has been reduced by over 20 percent, to 52.9. This has also meant dollars saved for the district to use for other educational purposes.



When the boiler is needed Principal Wes Murray and Custodian Pat Gossett work as a team. Wes will turn the system on in the morning and Pat will set it back during unoccupied times.

Preparing for a "Biting Cold & Snowy" Winter

Whether you are in Anchorage Independent with only three "weather days" or Jackson County with 35 "weather days" for School Year 2013-14, school closures were a major challenge last winter. If you believe the prediction from FarmersAlmanac.com for Kentucky, you should be asking, "How are we going to prepare our facilities for another extreme winter?"

To be positioned to deal with weather uncertainty, it is important to consider past performance. Ed Morgan, buildings and grounds supervisor for Jackson County Schools, said the district approaches facilities management from many directions. Because the district typically has many weather days, it begins the school year around the first of August, and plans extended breaks throughout the year that can serve as make-up days.

"Having many weather days each year, we have installed systems in our five schools that will allow us to control the HVAC via the Internet. While this was a significant investment, we were losing money because of the difficulty reaching our schools during the extreme winters to adjust building temperatures," said Morgan.

Energy manager Sherman Adams uses a similar approach in working with districts in the Shelby County Partnership, that includes Shelby, Henry, and Trimble Counties and Anchorage Independent. Among the strategies he uses to prepare for



Illustration from FarmersAlmanac.com

extreme weather are:

- ◆ Confirming the Building Automation System is working properly and verifying that equipment is actually shutting down.
- ◆ Ensuring exterior walls have no opening to permit air infiltration.
- ◆ Only operating building to the temperature required to keep pipes from freezing in extreme cold and when schools are unoccupied.
- ◆ Having a procedure in place for shutting down during snow days.

By using these strategies, the districts are making the best use of the equipment, facilities and energy resources.

Districts supplied by Columbia Gas eligible to join energy savings KGAP initiative through KSBA

More than a dozen school systems in central to northeast Kentucky are taking advantage of an energy saving initiative offered through KSBA and more districts in the region are eligible to benefit. The Kentucky Gas Aggregation Program (KGAP) was created by KSBA and Fellon-McCord, a Louisville-based, international energy management firm, to help districts reduce expenses in purchasing natural gas supplies. Districts participate at no cost. The cumulative savings is \$506,228 since 2011.

This year, Fellon-McCord identified a natural gas purchasing opportunity for districts served by Columbia Gas of Kentucky. Current participants are Bourbon, Boyd, Clark, Fairview, Fayette, Lawrence, Martin, Mason, Montgomery, Paris, Raceland-Worthington, Russell, Scott, Woodford districts. Also eligible are the districts in Ashland, Carter, Estill, Floyd, Frankfort, Franklin, Greenup, Harrison, Knott, Nicholas. Officials in eligible districts wishing to take advantage of the negotiated KGAP rates should contact Trevor Joelson at Fellon-McCord at 502-214-9335 or tjoelson@fellonmccord.com.

Anyone with questions about KGAP also may call KSBA and ask for Ron Willhite, Steve Smith or David Baird at 800-372-2962.